HOT SPOTS

The flip side...

Our satellite system has been fantastically successful. Since the satellite system began selling, we've received valuable feedback from our customers who have chosen to install the system themselves. This feedback has prompted us to provide this poster which is devoted to critical factors in the installation process. We call these critical factors *Hot Spots*.

The *Installer Guide* covers the Hot Spots that are essential for acquiring consistently strong satellite signals. Keep in mind that these Hot Spots are merely tips to help you before you begin your installation. As always, we recommend you read your Installer Guide and User Manual thoroughly before beginning any installation procedure.

Should I Do This Myself?

While the installation is not extremely difficult, it does require that you have some experience in minor construction techniques and electrical wiring. You may also be required to climb a ladder, so you'll want to be comfortable working with heights.

Do you have experience with similar home projects? Have you installed any of the following home products, or have you completed tasks similar to installing these products:

- **TV antenna outside your house**
- **ceiling fan**
- **basketball goal**
- **dimmer switch**
- **garage door opener**

If the answer is YES, then you can be reasonably confident that you can install the system yourself. We recommend reading the Installation Guide thoroughly before you start.

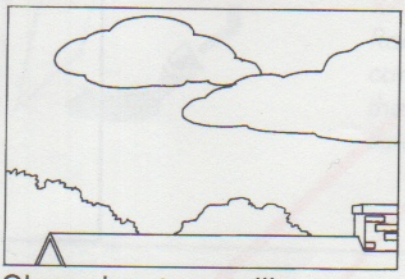
If the answer is NO, then this is probably not the time to learn. Consider contacting your local authorized satellite system retailer to recommend a professional installer.

Where Should I Install the Dish?

The most important step for the self-installer is to find the proper site on your property to mount the dish. The dish must have a clear view to the satellite, which means that between the dish and the satellite there can NOT be:

- **Trees, now or in future seasons**
- **Buildings or structures**

Check to make sure your view is clear.

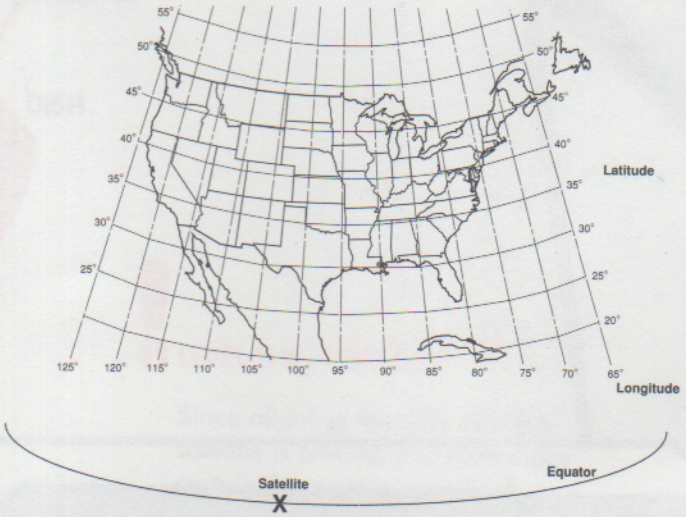


Clear view to satellite

Obstructed view to satellite

Determine the Satellite's Side-to-Side Direction (Azimuth)

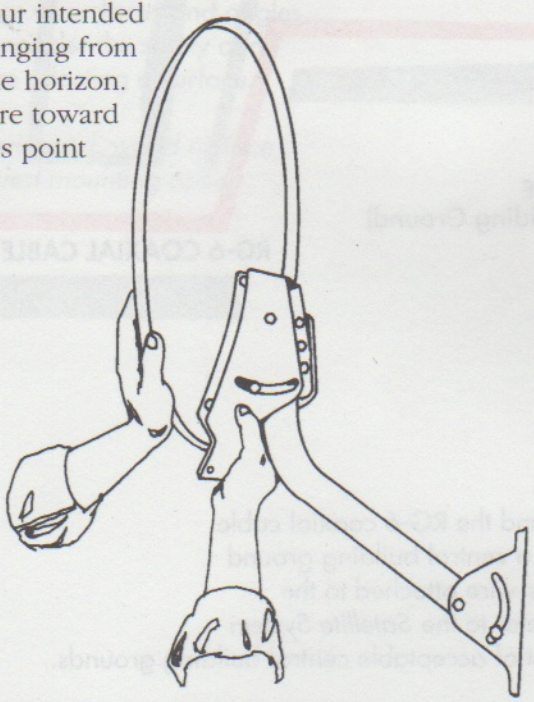
Stand where you intend to mount the dish and face south, as if you were looking toward a point on the equator due south of Texas. That's where the satellite is. For example, if you live in Boston, face the southwest. If you live in Seattle, face southeast. If you live in Texas or



The satellite is due south of Texas.

Determine the Up-Down Direction (Elevation)

Depending on whether you live in the northern or southern part of the country, the satellite is located somewhere between 30 and 60 degrees above the horizon. Look up from your intended site and imagine an arc ranging from 30 to 60 degrees above the horizon. (Southern states point more toward 60 degrees; northern states point more toward 30 degrees.)



Use the Elevation Indicator, not the bolt.

Use the Elevation Indicator

The elevation indicator is the edge of the metal strip—painted white—just to the left of the bolt. When you set the elevation on your dish, make sure to line up the numbered tick marks on the side of the dish with the elevation indicator, NOT the bolt.

Now What?

Are there any obstacles that might interfere with the satellite signal? There must be no trees, leaves (now or in the future), buildings, or windows between the dish and the satellite.

If you are unsure whether your intended mounting site has a clear view to the satellite, contact your satellite dealer for information about having a professional installer conduct a more thorough site survey.

If you feel you have a clear view to the satellite,
follow the steps in the Installation Guide to install your system.

Note: you will use the system's on-screen menus to determine the precise azimuth and elevation settings for your location.

WARNING: Do NOT install the dish near power lines, electric lights, or power circuits. It is recommended that the dish be located at least 20 feet from overhead power lines. Contact with power lines may be fatal.

Coaxial Cables are not created equal

You must use RG-6 coaxial cable with messenger (ground) wire for your system to work correctly. The type of coaxial cable is usually printed on the cable itself. If you purchased the Self Installer's Kit, you already have the correct coaxial cable. If you decide to add or splice additional pieces of cable, make sure you use RG-6 with messenger (ground) wire.

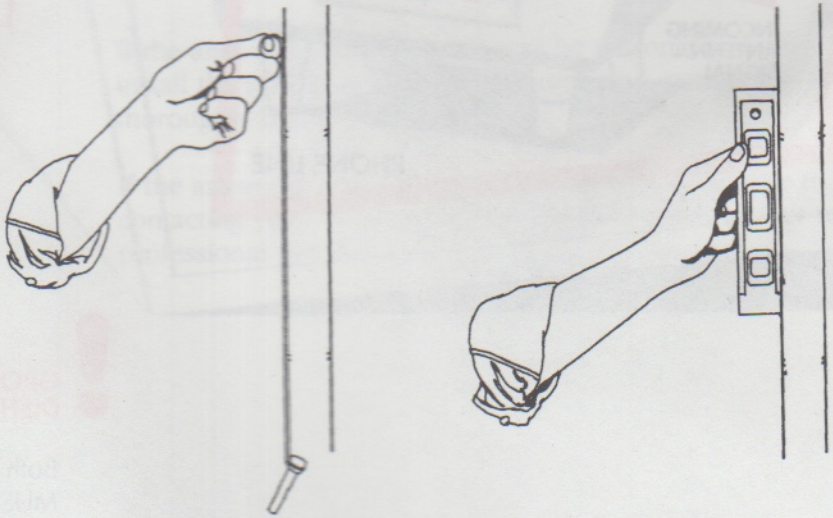
- **Do NOT use the same coaxial cable that is commonly used by your cable company.**
- **Do NOT use RG-59 coaxial cable to install your system.**

CAUTION: It is very important that you ground both the dish and the coaxial cables. A lightning strike on an ungrounded dish can easily damage the dish, the satellite receiver, and your TV.

Leveling the Mast

You will not be able to aim the dish accurately if the top portion of the mast is not level. Leveling the mast is also called "plumbing" the mast.

The top portion of the mast must not tilt to the left, right, front, or back. So make sure to check for tilt in several directions.



Use a plumb line (left) or level (right) to level the mast.

How Strong Should My Signal Be?

Depending on your location, your highest possible signal strength will be somewhat less than 100. There is no apparent difference between a signal strength of 60 and a signal strength of 85. However, the higher your signal strength, the less likely you are to suffer the effects of rain fade.

The goal is to achieve the highest possible signal strength for your location. Take the time to fine-tune the dish's left-right (azimuth) and up-down (elevation) settings.

What is Rain Fade?

Rain fade is the temporary loss of a satellite signal due to the inability of the satellite to penetrate unusually heavy rain clouds or rainfall. Rain fade tends to be brief, lasting only as long as the heavy rain cloud condition persists.

To minimize rain fade effects, maximize your signal strength. Then, when rain fade occurs, you have the best chances of having a signal that is still strong enough to view.

Also, make sure the dish is mounted securely. The strong winds that accompany rainstorms can move the dish out of position if it is not mounted securely.

Don't Forget About the Installation Kit

You'll need several parts, cables, and accessories to install the system yourself. To assist you in your installation efforts, there is a Self-Installers Kit available that contains most of the things you need, including:

- **Complete installation instructions**
- **RG-6 coaxial cables with pre-installed connectors**
- **Mounting screws and bolts**
- **Silicon sealant**
- **Grounding block**
- **Compass**
- **Additional materials and cabling**

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HOT SPOTS

**The Hot Spot exclamation points indicate steps that require special attention.
Do not skip or ignore any of these considerations.**

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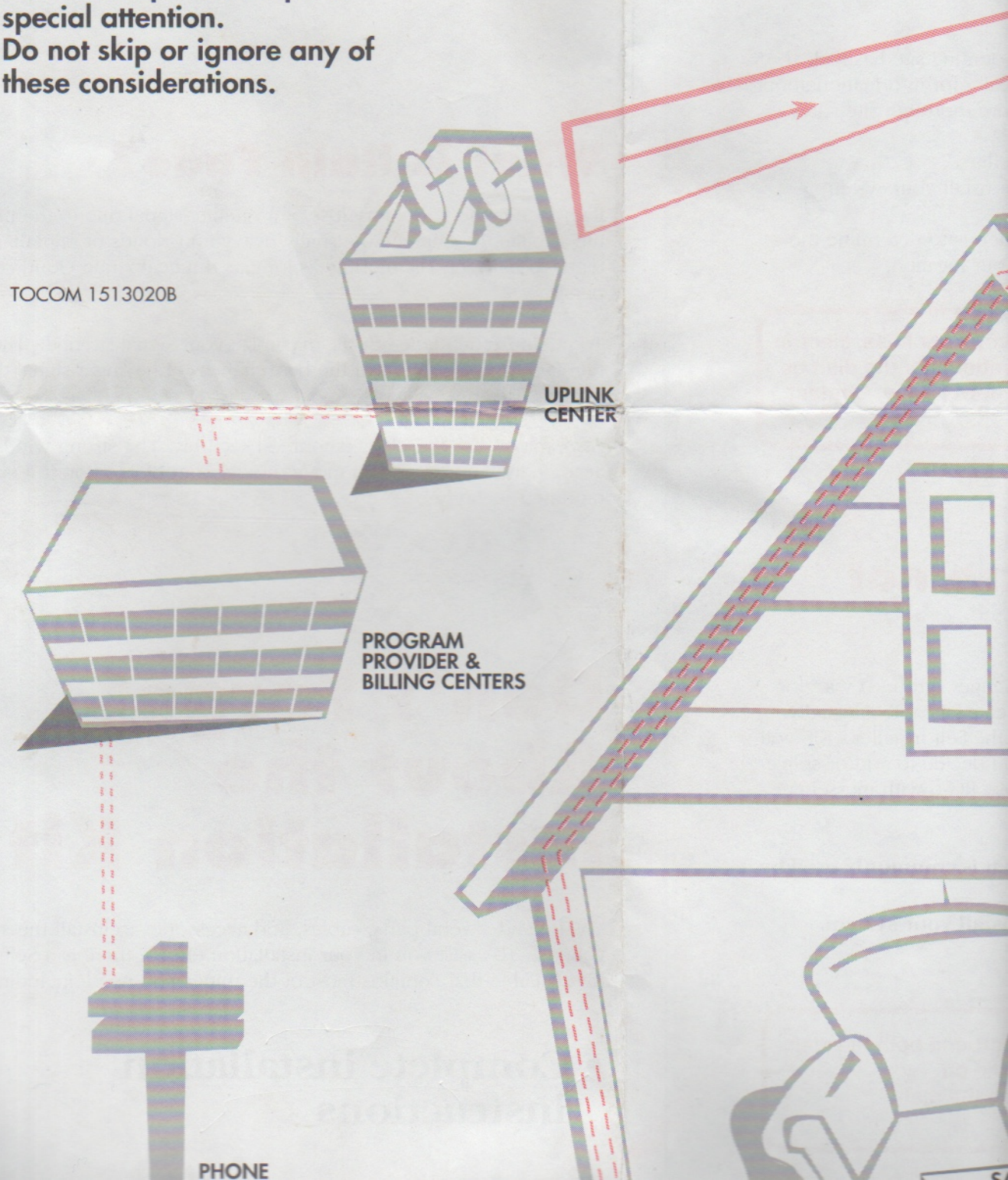

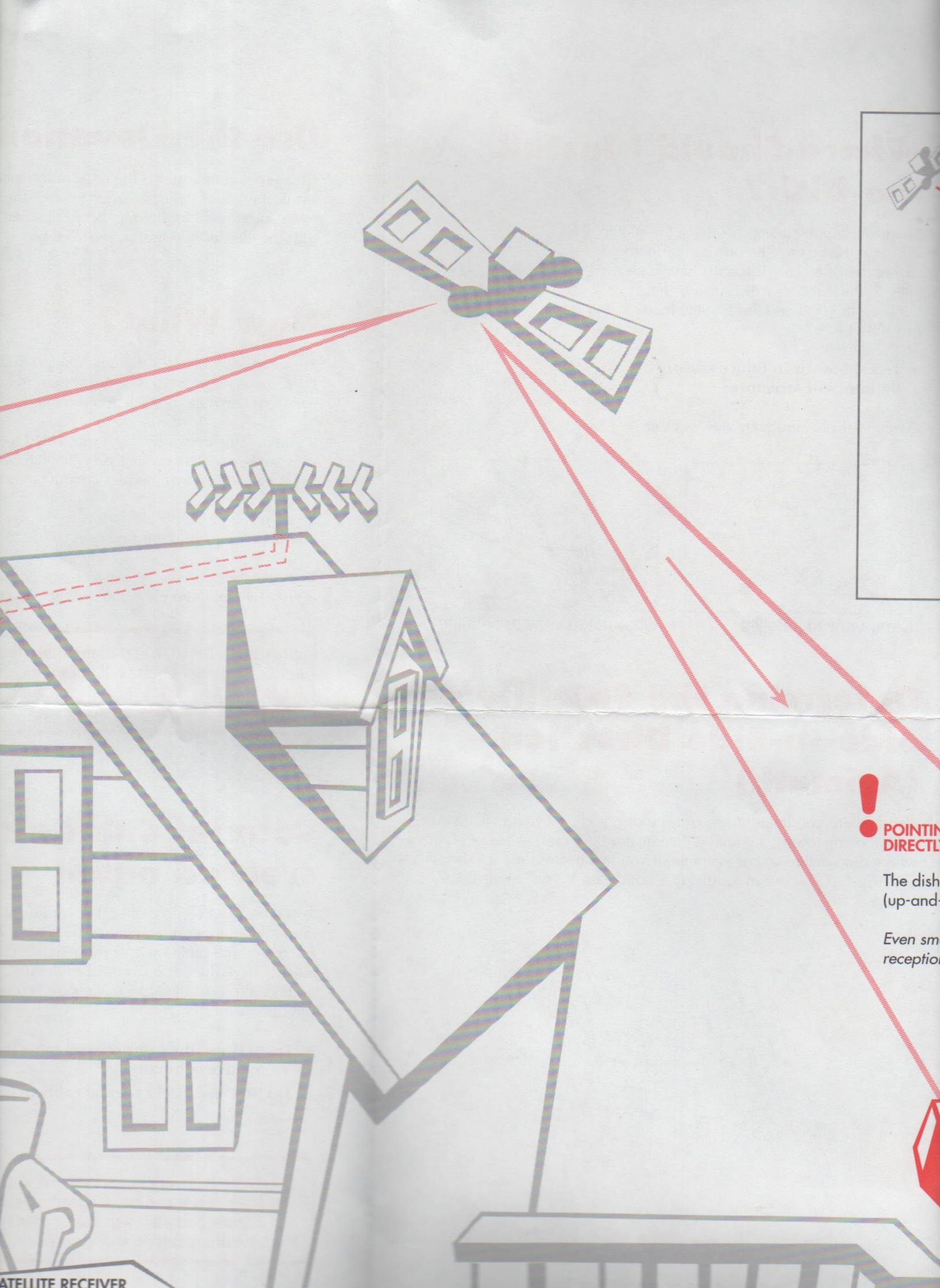

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ATELLITE RECEIVER

OBSTRUCTED VIEW

NO INSTALLATION POSSIBLE

To receive the satellite signal, you must have a clear view between your dish and the satellite.

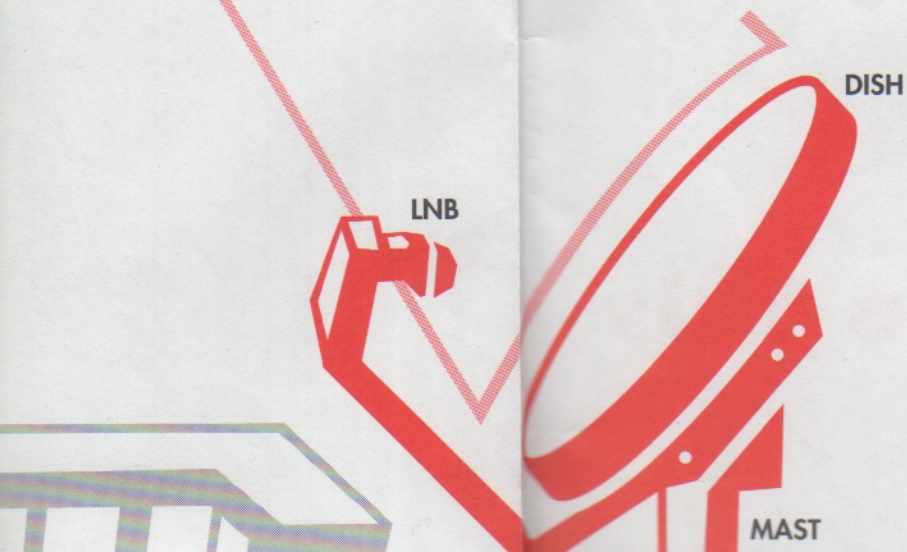
RAIN FADE

Rain clouds and snow can temporarily affect the reception of the satellite signal.

POINTING THE DISH DIRECTLY AT THE SATELLITE

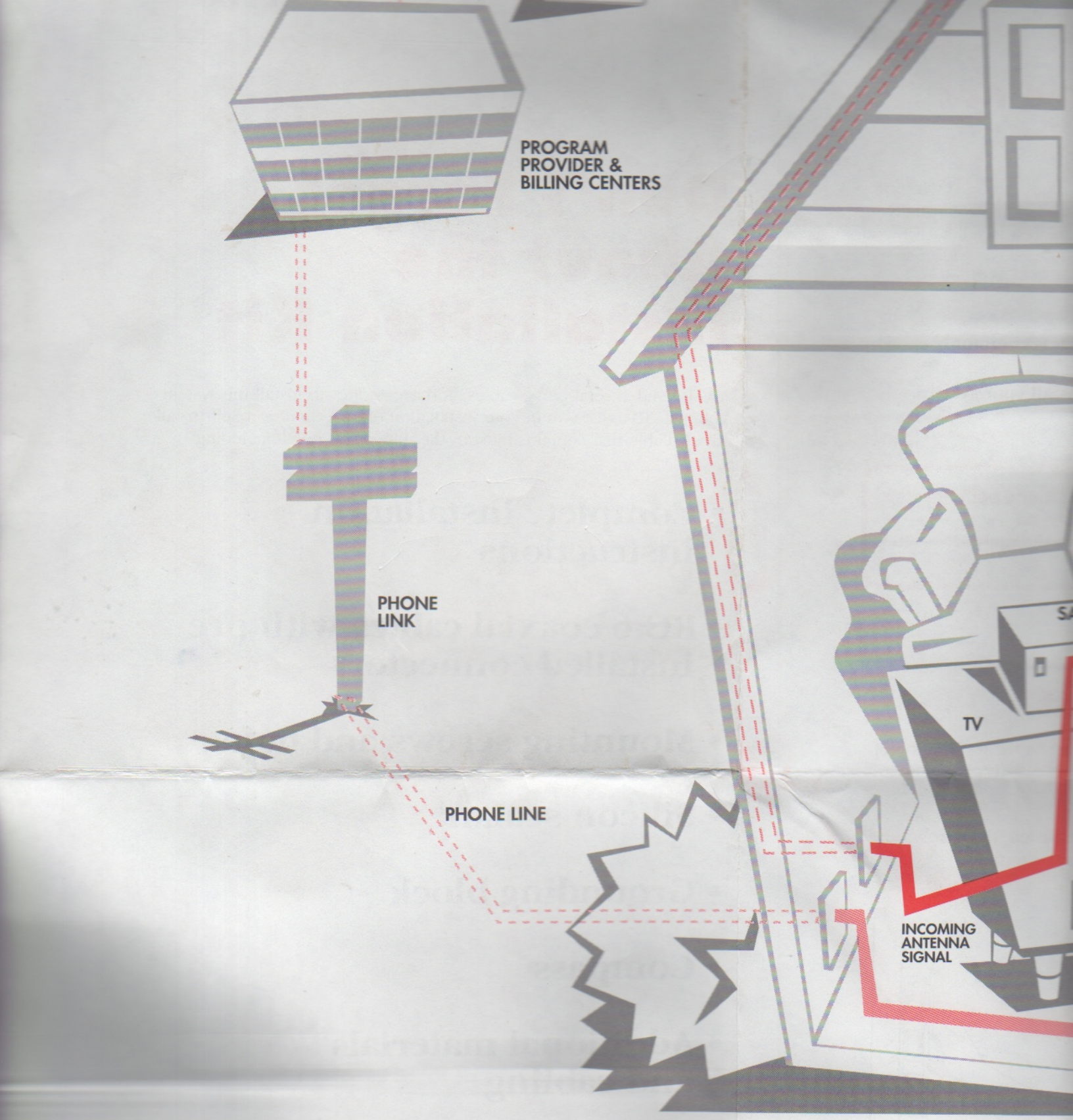
The dish MUST be pointed toward the satellite at the correct elevation (up-and-down direction) and azimuth (side-to-side direction).

Even small errors in elevation and azimuth settings can result in a poor reception or complete inability to receive the satellite signal.



LEVEL THE DISH MAST

Since aligning the dish with the satellite is crucial, you must make certain the mast is completely level vertically and horizontally.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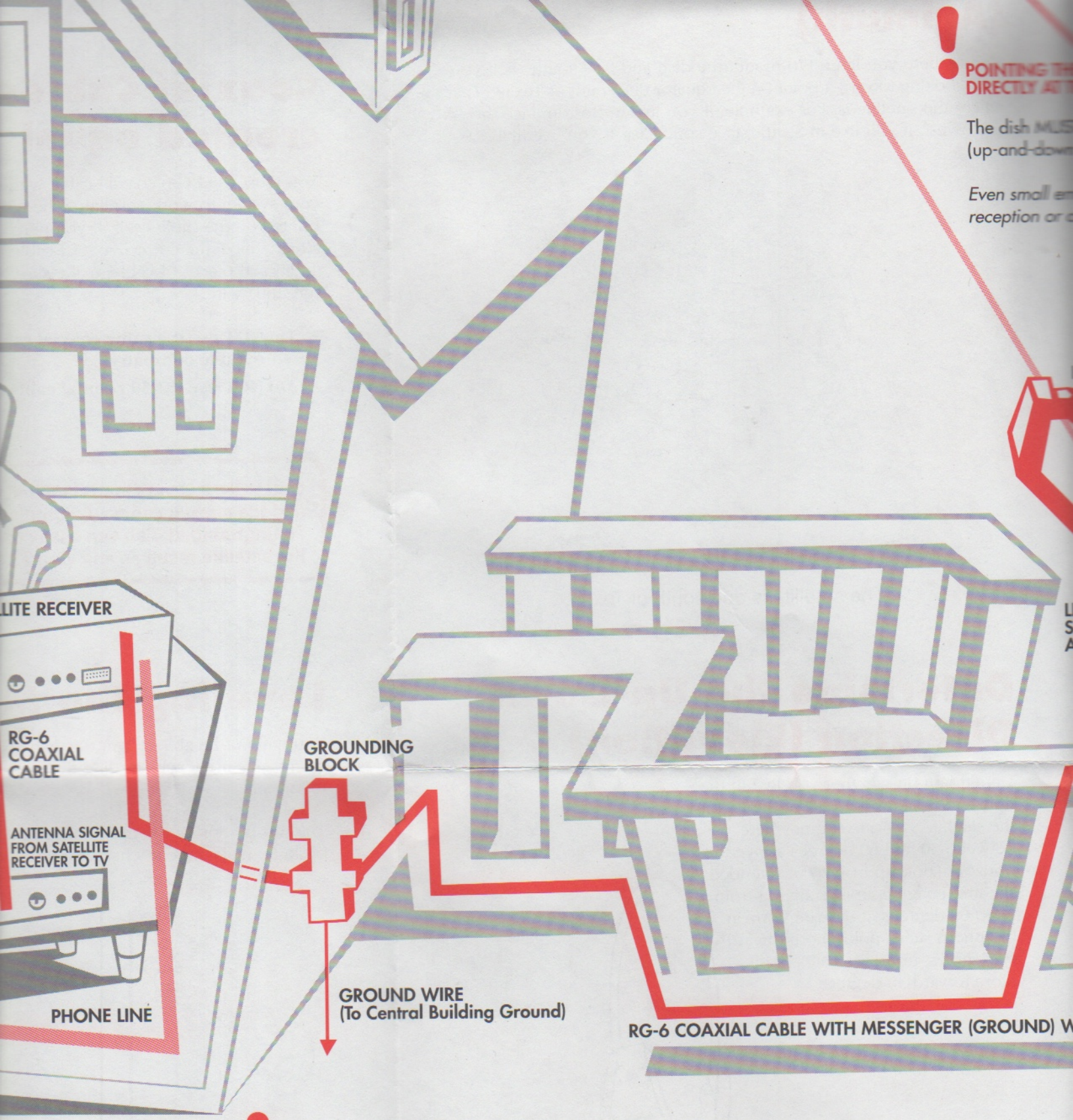

POINTING TH DIRECTLY AT

The dish MUS (up-and-down

Even small er reception or

GROUNDING THE DISH AND CABLES

Both the satellite dish and the RG-6 coaxial cable MUST BE grounded to a central building ground by using the messenger wire attached to the RG-6 coaxial cable. Refer to the *Satellite System Installer Guide* for a list of acceptable central building grounds.

ROUTING THE CABLE

Decide which parts, tools and much cable you need BEFOR begin the installation.

Only use RG-6 coaxial cable with Messenger (ground) wir in the installation and connection of this system.

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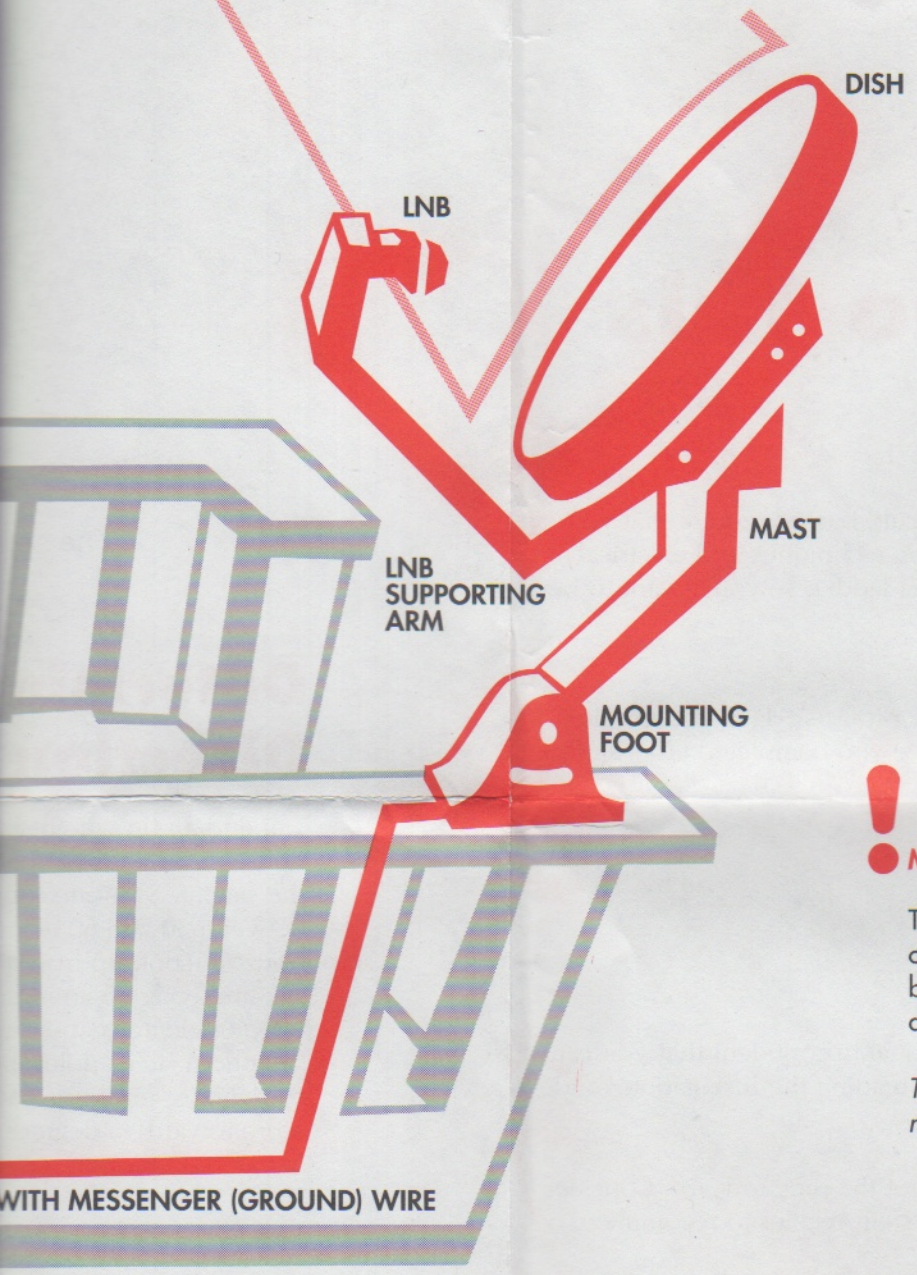

LEVEL THE DISH MAST

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MOUNTING SURFACES

The satellite mast and dish can be mounted on several types of surfaces and angles, but carefully consider the safety and difficulty before selecting a surface.

Typically, a horizontal, wood surface makes the easiest mounting option.

ROUTING THE CABLE

Decide which parts, tools and how much cable you need BEFORE you begin the installation.

Only use RG-6 coaxial cable with Messenger (ground) wire in the installation and connection of this system.